



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Total Maximum Daily Load Information Sheet

Black Creek

Water Body ID: 111

Water Body Segment at a Glance:

County:	Shelby
Nearby City:	Shelbyville
Water Body ID:	111
Segment Length:	19.4 miles
Watershed Size:	112.2 square miles
Pollutant 1:	Bacteria (<i>E. coli</i>)
Source 1:	Shelbyville WWTF and nonpoint sources
Pollutant 2:	Low dissolved oxygen
Source 2:	Unknown



Statewide Map Showing Location of Watershed

Schedule for TMDL development:

TMDL development schedules are subject to change.

The most current schedule for TMDL development is available on the department's website at dnr.mo.gov/env/wpp/tmdl/wpc-tmdl-progress.htm

Description of the Problem

A water body is considered impaired when it fails to meet applicable water quality standards. Water quality standards consist of designated uses, water quality criteria, an antidegradation policy and implementation procedures.

Designated beneficial uses of Black Creek*

- Warm Water Habitat (WWH)
- Livestock and Wildlife Protection (LWP)
- Irrigation (IRR)
- Human Health Protection (HHP)
- Whole Body Contact Recreation – Category B (WBC-B)
- Secondary Contact Recreation (SCR)

*In addition to these specific uses, all waters of the state are protected by the general water quality criteria that are specified in the state's Water Quality Standards at 10 CSR 20-7.031(4).

Designated uses that are impaired

- Whole Body Contact Recreation – Category B (WBC-B)
- Warm Water Habitat (WWH)

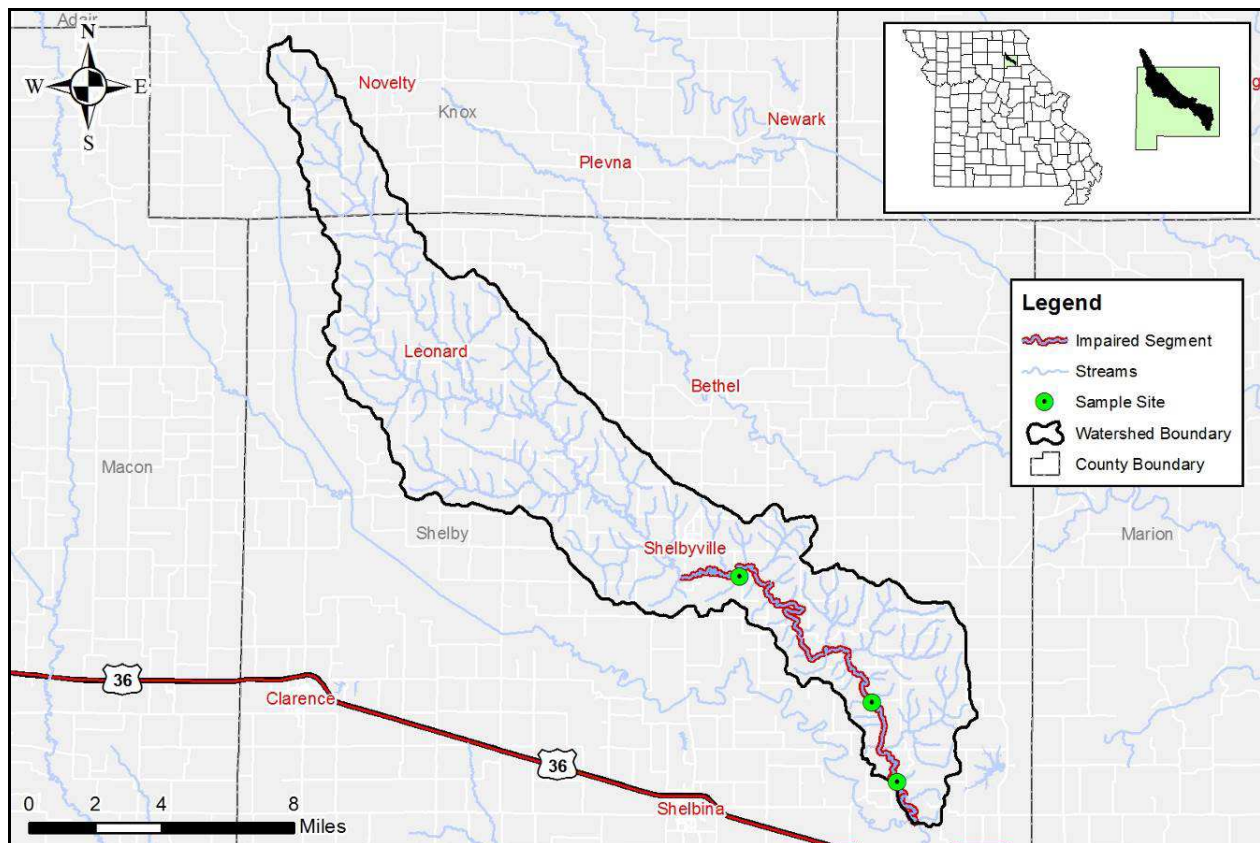
Criteria that apply

- Missouri's Water Quality Standards at 10 CSR 20-7.031(5)(C) and Table A state that the *E. coli* bacteria count, measured as a geometric mean, shall not exceed 206 colonies per 100 milliliters of water (206 col/100 mL) for Category B waters during the recreational season. The recreational season is defined as being from April 1 through October 31.
- The specific criteria for dissolved oxygen are found at 10 CSR 20.7.031(5)(J) and Table A, which state that the minimum allowable dissolved oxygen concentration for warm-water habitat is 5 milligrams per liter (mg/L).

Background information and water quality data

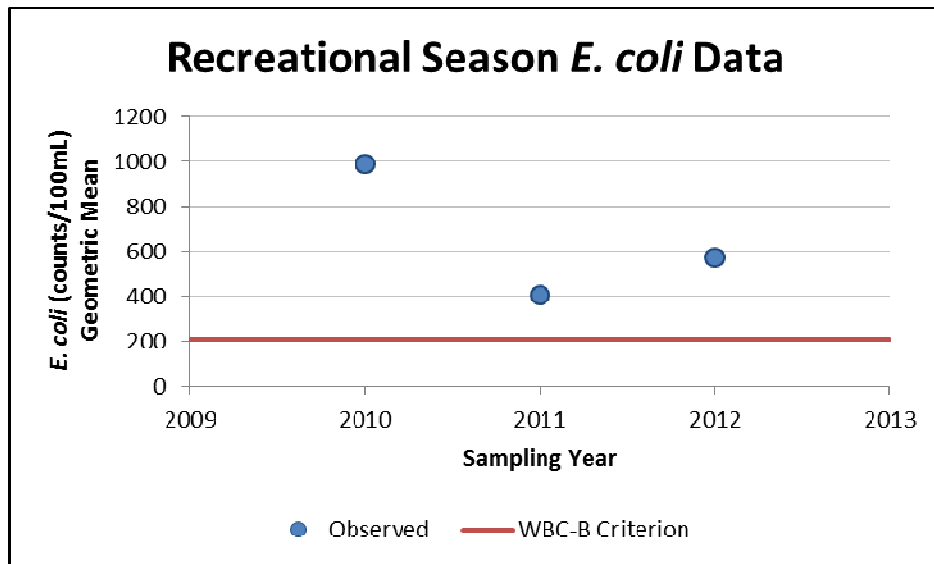
Black Creek is a rural stream that flows from Knox County into Shelby County. The impaired segment is located near the municipality of Shelbyville and is a tributary of the North Fork Salt River.

Map showing monitoring sites on the impaired segment in the Black Creek Watershed



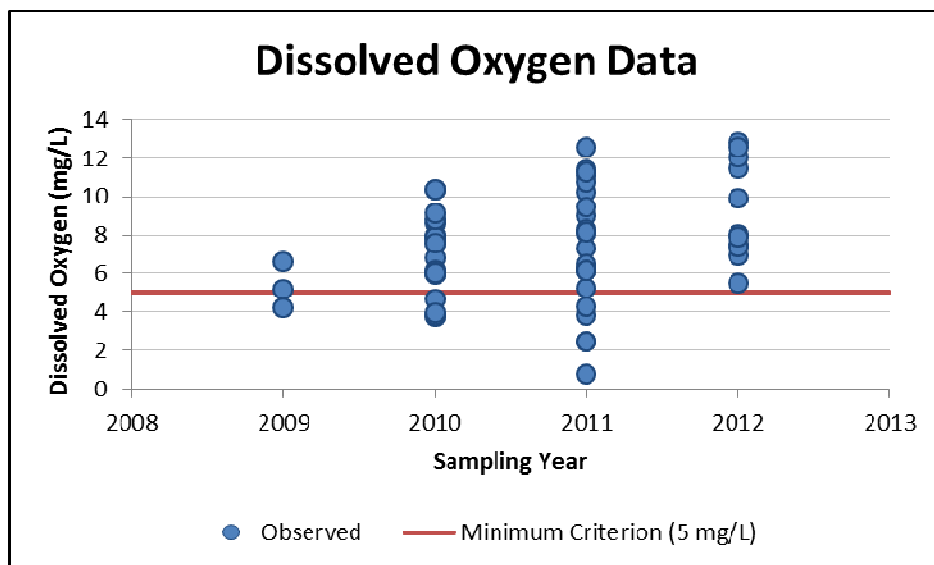
Bacteria Impairment

The department judges a stream impaired by bacteria if the applicable water quality criterion for *E. coli* is exceeded in any of the last three years for which there is a minimum of five samples taken during the recreational season. Sufficient *E. coli* data for Black Creek is available for the 2010, 2011, and 2012 recreational seasons. The geometric mean criterion was exceeded in all three years.



Low Dissolved Oxygen Impairment

The department judges a water impaired due to low dissolved oxygen if ten percent or more of available dissolved oxygen measurements fall below the water quality criterion of 5 mg/L. For Black Creek, 57 dissolved oxygen measurements were made from 2009 to 2012. Of these 57 measurements, 10 were found to be below 5 mg/L. This equates to a 17.5 percent exceedance rate. For this reason, Black Creek was judged impaired due to low dissolved oxygen.



Note: The Black Creek TMDL will calculate the maximum amount of each listed pollutant that the stream can receive and still meet water quality standards. The TMDL will also identify all potential or suspected pollutant sources in the watershed and distribute the allowable pollutant loads among those various sources. For this reason, the final TMDL may present information that differs from that contained in this information sheet.

For more information call or write:

Department of Natural Resources
Water Protection Program – Watershed Protection Section
P.O. Box 176
Jefferson City, MO 65102-0176
Ph: 1-800-361-4827 or 573-751-1300
Fax: 573-526-6802
Email: TMDL@dnr.mo.gov
Program Home Page: dnr.mo.gov/env/wpp/index.html